

**From:** Joseph Gantos  
**To:** [Santos, Carmen](#)  
**Cc:** [Robert Cronin](#); [Keith Takata](#); [Armann, Steve](#)  
**Subject:** List of Meeting Participants  
**Date:** Tuesday, December 13, 2016 2:45:22 PM

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Hi Carmen,

I've had two cancellations for tomorrow's meeting. Bob Cronin and Sue Fields will not be able to attend.

Please revise the participants' list as follows:

Planned Participants: Steve Armann (EPA), Kevin Bazzell (DOE), Bob Devany (LBNL), Joe Gantos (LBNL), Bruce Marvin (LBNL), Ron Pauer (LBNL), Carmen Santos (EPA), and Keith Takata (LBNL)

Thanks!

On Mon, Dec 12, 2016 at 3:00 PM, Joseph Gantos <[njgantos@lbl.gov](mailto:njgantos@lbl.gov)> wrote:

**Hi Carmen,**

Thanks for the quick reply and we appreciate your recommendation to remove Condition 4.

Before I bother Steve with a call, let's wait to see if we get the approval today.

**Hi Steve,**

If there anything you could do to get us started (i.e. advance email approval?), we would like to run the WTS operations tonight for several hours ahead of the expected rain event on Tuesday.

Many thanks,

Joe

On Mon, Dec 12, 2016 at 2:42 PM, Santos, Carmen <[Santos.Carmen@epa.gov](mailto:Santos.Carmen@epa.gov)> wrote:

Hello Joe,

The letter is undergoing final review. I hope it gets signed today but it could be tomorrow. I cannot send you an approval via email, a manager has to sign the letter. Let me see what else we could do. I recommend calling Steve Armann.

I want to also tell you that I recommended to my management to remove draft Condition 4. That condition limited the maximum operational volume for each of the individual 21,000 gallon influent storage tanks to 75% of the total capacity of each tank. However, the condition related to the influent tanks' containment berm needing to have the full volume available at all times was not changed. In my opinion this is a reasonable compromise. All the other conditions remain the same. A new condition was added and the text is below:

"LBNL should take actions, as feasible, to reduce the volume of storm water that may accumulate in the excavation by covering the excavations until they are backfilled."

Thank you for your courtesies.

Best,

Carmen

**Carmen D. Santos**

PCB Coordinator

USEPA Region 9 (LND-4-1)

Land Division

75 Hawthorne Street

San Francisco, CA 94105

Voice: [415.972.3360](tel:415.972.3360)

[santos.carmen@epa.gov](mailto:santos.carmen@epa.gov)

*"Think left and think right and think low and think high. Oh, the things you can think up if only you try!"* Dr. Seuss

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**From:** Joseph Gantos [mailto:[njgantos@lbl.gov](mailto:njgantos@lbl.gov)]

**Sent:** Monday, December 12, 2016 2:08 PM

**To:** Santos, Carmen <[Santos.Carmen@epa.gov](mailto:Santos.Carmen@epa.gov)>

**Cc:** Robert Cronin <[rdcronin@lbl.gov](mailto:rdcronin@lbl.gov)>; Keith Takata <[keith@keithtakata.com](mailto:keith@keithtakata.com)>; Armann, Steve <[Armann.Steve@epa.gov](mailto:Armann.Steve@epa.gov)>

**Subject:** Draft Meeting Agenda and WWTS Relocation Approval Status

Hi Carmen,

1. We'd like to know the status of the Waste Water Treatment System Relocation approval. You indicated previously that we should have the approval today. Is that still your plan? If the approval letter is delayed, would you be willing to send us an email approval so we can start the WTS operations while we wait for the signed letter?

2. Attached for your review is a draft agenda for the Wednesday meeting. Please let me know of any changes. Also, you'll find the list of meeting participants in the agenda.

Thanks,

Joe

On Thu, Dec 8, 2016 at 11:50 AM, Santos, Carmen <[Santos.Carmen@epa.gov](mailto:Santos.Carmen@epa.gov)> wrote:

Hi Joe,

Thank you for your input on the draft conditions of approval.

Best,

Carmen

**Carmen D. Santos**

PCB Coordinator

USEPA Region 9 (LND-4-1)

Land Division

75 Hawthorne Street

San Francisco, CA 94105

Voice: [415.972.3360](tel:415.972.3360)

[santos.carmen@epa.gov](mailto:santos.carmen@epa.gov)

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**From:** Joseph Gantos [mailto:[njgantos@lbl.gov](mailto:njgantos@lbl.gov)]

**Sent:** Thursday, December 08, 2016 11:17 AM

**To:** Santos, Carmen <[Santos.Carmen@epa.gov](mailto:Santos.Carmen@epa.gov)>

**Cc:** Robert Cronin <[rdcronin@lbl.gov](mailto:rdcronin@lbl.gov)>; Keith Takata <[keith@keithtakata.com](mailto:keith@keithtakata.com)>;  
Armann, Steve <[Armann.Steve@epa.gov](mailto:Armann.Steve@epa.gov)>

**Subject:** Re: LBNL Water Treatment System Relocation Spill Prevention Plan - Draft Conditions

Hi Carmen,

We have reviewed the conditions and find them acceptable with one minor clarification to Condition 3 and one probable typo in Condition 4:

**Condition 3.** The containment berms associated with each influent storage tank holding water that contains PCBs must be empty at all times **to the extent practicable** to ensure the maximum calculated containment capacity is maintained in case of a spill or tank release due to a loss in tank structural integrity (e.g., damaged seams, rupture) or malfunction of gauges reading tank volume. (DRAFT)

**Condition 4.** The volume of water in the influent storage tank should not exceed 75% of their maximum capacity of 21,000 gallons and the containment berm capacity should be maintained as required in Condition ~~2~~ **3** above. The November 2016 Spill Plan proposes to use 90% of the volume capacity of each of the 21,000 gallon tanks (about 18,900 gallons). However, in our opinion, the containment berm for each tank should hold a water volume larger than the volume capacity of 1,885 gallons calculated in the November 2016 Spill Plan for each of the containment berms. (DRAFT)

Please let me know if we need to discuss further and I will set up a call for this afternoon to discuss. Thanks again for providing an advance copy of these conditions.

We look forward to receiving your approval.

Joe

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On Wed, Dec 7, 2016 at 7:05 PM, Santos, Carmen  
<[Santos.Carmen@epa.gov](mailto:Santos.Carmen@epa.gov)> wrote:

Hello Robert, Joe, and Keith,

Below are draft conditions associated with the continued use of the water storage tanks in the new area to where the water treatment system (WTS) was relocated. We understand the WTS was relocated to the east of former Building 5. We are sharing these draft conditions with you so that you are aware of what they are. If you have concerns with this draft conditions, please call me to discuss. We prefer that approach. As you read the draft conditions, please keep in mind the no unreasonable risk determination that EPA made in Section IV.A of the May 10, 2016 approval (as amended on May 24, 2016) of the LBNL risk-based PCB cleanup application. In context to the relocation of the WTS and continued use of the storage tanks (i.e., influent tanks), EPA needs to be able to sustain the no unreasonable risk determination in the May 2016 Approval when allowing the continued use of the storage tanks at the new WTS location. Moreover, as I explained in my November 21 and 22, 2016 emails regarding the no unreasonable risk determination, EPA is also considering EBMUD's discharge limit for PCBs of 0.017 ug/L, which is more stringent than EPA's unrestricted use level for PCBs in water equal to or below 0.5 ug/L.

We will be discussing internally the tank containment berm volume for the 21,000 gallon tanks which is one of the issues addressed in one of the draft conditions included below.

**Draft Conditions for Continued Use of Tanks to Store Water  
Containing PCBs, New WTS Location**

1. Continued use of the influent storage tanks must not result in unreasonable risk of injury to health or the environment. In the event that EPA cannot sustain the no unreasonable risk determination that

it made in the May 2016 Approval, EPA will modify or revoke the Approval. (DRAFT)

2. Liquids to be stored in the influent (storage) tanks are those described in EPA's May 2016 Approval and include water that has accumulated in excavations related to the PCB remediation at the site and water/hexane mixture from decontamination of equipment and tools that were used at the site during PCB sampling and remediation activities. The water from the excavations include storm water runoff and ground water that may have entered the excavations. (DRAFT)

3. The containment berms associated with each influent storage tank holding water that contains PCBs must be empty at all times to ensure the maximum calculated containment capacity is maintained in case of a spill or tank release due to a loss in tank structural integrity (e.g., damaged seams, rupture) or malfunction of gauges reading tank volume. (DRAFT)

4. The volume of water in the influent storage tank should not exceed 75% of their maximum capacity of 21,000 gallons and the containment berm capacity should be maintained as required in Condition 2 above. The November 2016 Spill Plan proposes to use 90% of the volume capacity of each of the 21,000 gallon tanks (about 18,900 gallons). However, in our opinion, the containment berm for each tank should hold a water volume larger than the volume capacity of 1,885 gallons calculated in the November 2016 Spill Plan for each of the containment berms. (DRAFT)

Alternatively, LBNL may increase the volume capacity of the containment berm for each influent storage tank to at least hold 20% of the volume from each tank. The volume in each tank must not exceed 90% of 21,000 gallons which is the maximum capacity of each tank. (DRAFT)

5. Pumps and empty containers of adequate capacity must be available and maintained at all times at the WTS site and be readily accessible in case of a release from any of the influent storage tanks. This is to ensure that liquids accumulated in the containment berm are pumped and safely stored in containers before they overflow and impact other areas of the site. (DRAFT)

6. The November 2016 Spill Plan states that "[v]ehicular travel around the treatment system area is restricted to minimize a vehicular collision that may impact the system." A fence should be installed to isolate and protect the influent storage tanks from vehicular traffic and potential impacts to the structural integrity of the tanks. (DRAFT)

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Best,

Carmen

**Carmen D. Santos**

PCB Coordinator

USEPA Region 9 (LND-4-1)

Land Division

75 Hawthorne Street

San Francisco, CA 94105

Voice: [415.972.3360](tel:415.972.3360)

[santos.carmen@epa.gov](mailto:santos.carmen@epa.gov)

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Joseph Gantos

[510.486.5077](tel:510.486.5077) (desk)

[720.810.7723](tel:720.810.7723) (cell)

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Joseph Gantos

[510.486.5077](tel:510.486.5077) (desk)

[720.810.7723](tel:720.810.7723) (cell)

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Joseph Gantos

[510.486.5077](tel:510.486.5077) (desk)

[720.810.7723](tel:720.810.7723) (cell)

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Joseph Gantos

510.486.5077 (desk)

720.810.7723 (cell)